

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/938,909	09/26/97	LAUNDER	B 30496.00.017

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EXAMINER

BATSON, V

ART UNIT

PAPER NUMBER

3671

DATE MAILED:

11/27/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/938,909

Applicant(s)
LAUNDER ET AL.

Examiner
VICTOR BATSON

Group Art Unit
3671



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-63 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-63 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on Sep 26, 1997 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit Change

1. The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 3671.

Drawings

✓ 2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "row of teeth" (claim 29 line 1) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Reference numbers

✓ "73" (page 13 line 13), "41" (page 15 line 17), "14" (page 19 line 12), "376" (page 22 line 22), "372" (page 23 line 1) "472" (page 25 line 2). Additionally, FIGURE 9, does not appear to include "line 10 - 10" (page 8 line 7). Correction is required.

Specification

4. The disclosure is objected to because of the following informalities: ✓ On page 19 line 1, the phrase "disposed in dimensioned" is not understood. ✓ On page 21 line 3, it appears that "218" should be changed to "281". ✓ On page 22 line 13, it

appears that "210" should be changed to "10". On page 24 line 1, it appears that "whereby" should be changed to "thereby". Appropriate correction is required.

Claim Objections

5. Claims 9-13, 29, 32, 58, 59, 61, 62 are objected to because of the following informalities: In claim 9 line 15, it appears that "to" should be inserted after "tooth". In claim 29 line 10, "upper or lower surface" should be changed to "upper or lower surfaces". Appropriate correction is required. In claim 32 line 10, "d" should be deleted. In claim 58 line 2, "horizontal" should be inserted after "flat".

Claim Rejections - 35 USC § 112

6. Claims 2, 3, 5, 6, 10-12, 14-32, 37, 41-62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 22 line 5, it is unclear which hole "said hole" is referring to. In claim 25 line 3, "for matingly receiving said nose piece" is not understood since the adapter is comprised of a nose piece. In claim 26 line 6 & claim 28 line 7, it is unclear whether applicant is referring to "vertical forces" established in claim 23 line 12, or different vertical forces. It appears that "the" should be inserted before "vertical forces". In claim 29 line

10, "each stabilizing surface" is confusing since antecedent basis has been established for only "a generally vertical stabilizing surface". ~~In~~ claim 32 lines 13-14, "the support surface and the respective upper and lower surfaces" is confusing and should probably be changed to "the support surfaces and respective upper and lower surfaces". ~~In~~ claim 63 line 15, "an about the nose portion" is not understood.

The following lack proper antecedent basis:

"the longitudinal centerline" - (claim 2 line 3) & should be changed to "a longitudinal centerline"

"a plane" - (claim 2 lines 4-5) & should be changed to "the plane"

"the same generally" - (claim 3 line 2, claim 10 line 2) & should be changed to "a same generally"

"said nose piece" - (claim 5 line 1, claim 6 line 3, claim 11 line 3, claim 12 line 4, claim 14 line 12, claim 15 lines 2-3, claim 18 lines 1 & 2, claim 19 line 3, claim 23 lines 5 & 16, claim 25 line 3)

"the longitudinal centerline" - (claim 5 line 2, claim 15 line 2) & should be changed to "a longitudinal centerline"

"the forward end portion" - (claim 5 line 4) & should be changed to "a forward end portion"

"the associated bore" - (claim 16 line 2) & should be changed to "an associated bore"

"the forward end portion of the adapter" - (claim 18 line 4,
claim 19 line 1)

"the support surface" - (claim 29 line 9)

"the lateral spacing" - (claim 29 line 11)

"the stabilizing surface surrounding each support surface" -
(claim 29 line 16)

"the cavity" - (claim 30 lines 14-15)

"the adapter" - (claim 31 line 13, claim 32 line 16, claim 55
lines 2 & 3, claim 56 line 2, claim 57 line 3, claim 58 lines 3 &
5, claim 59 line 3, claim 61 line 2, claim 62 lines 2-3)

"the center" - (claim 31 line 18, claim 32 line 24) & should be
changed to "a center"

"the curvilinear surface" - (claim 32 line 18) & should be
changed to "the curvilinear configuration"

"the aperture" - (claim 32 line 26, claim 54 line 12) & should be
changed to "the opening"

"blind cavity" - (claim 37 line 4) & should be changed to "a
blind cavity"

"each pair of stabilizing lands" - (claim 41 lines 1-2)

"front edge" - (claim 42 line 4) & should be changed to "a front
edge"

"the generally flat surfaces" - (claim 51 lines 2-3)

"the stabilizing lands" - (claim 56 line 2, claim 57 lines 1-2)

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

8. Claims 1-32 as best understood by the examiner are rejected under 35 U.S.C. 102(e) as being anticipated by Clendenning (5,765,301).

Clendenning discloses an excavation tooth assembly comprising an adapter 12 having a horizontal land section through which a bore extends with a vertical wall 46, with a tooth having a cavity adapted to mate with the adapter, with the cavity configured with a recess defining a substantially horizontal transmitting section through which a hole extends to act in conjunction with the bore of the adapter, the tooth further having a vertical wall corresponding to the vertical wall of the land section, with a fastener 18 as shown in figure 1.

Concerning claim 26, Clendenning discloses a horizontal forward land section and a substantially horizontal forward transmitting section (at 38). Additionally, Clendenning in figures 1, 3,4 shows three generally parallel support surfaces

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 33,42,43,48 as best understood by the examiner are rejected under 35 U.S.C. 102(b) as being anticipated by Sturgeon (3,707,788).

Sturgeon discloses all of applicants claimed structure of an adapter 26, an elongated tooth 39 and an elastomeric member 56 disposed between a free end of the nose portion of the adapter and a terminal wall of the blind cavity on the tooth as shown in figures 1 & 11. Concerning claim 42, Sturgeon discloses using a spring 66.

Concerning claim 48, the stabilizing lands are considered the top & bottom surfaces of the nose portion.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 34, 35, 36, 37, 38, 44, 45, 46, 47, 49, 54, 55, 56, 60, 63 as best understood by the examiner, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sturgeon (3,707,788).

Sturgeon discloses an excavating tooth assembly as described previously, with an elongated pin 57, but Sturgeon lacks specifying a ratio of plastic deformation to elastic deformation which is greater than 1.5 to 1.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the elastomeric member out of a material having a ratio of plastic deformation to elastic deformation which is greater than 1.5 to 1, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Concerning claims 38, 55, 56, the stabilizing lands are considered the top & bottom surfaces of the nose portion.

Concerning claim 44, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the spring from an elastomeric material having a ratio of plastic deformation to plastic deformation greater than 1.5 to 1, since it has been held to be within the general skill

of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Concerning claims 49 & 54, figure 11 shows the elastomeric material being disposed between the stabilizing lands between the tooth and adapter.

Concerning the limitations of the sleeve or elastomeric material surrounding the nose portion between the exterior surface of the adapter and the interior surface of the tooth, it is noted that applicant does not claim that the material must surround or extend between the entire surface(s), and therefore, the device of Sturgeon is considered to meet the claimed limitations.

13. Claims 39,40,41,50,51,57,58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sturgeon (3,707,788) in view of Clendenning (5,765,301).

Sturgeon discloses a tooth assembly as described previously, but lacks the stabilizing lands including generally flat horizontal surfaces.

Clendenning teaches that it is known in the art to form stabilizing lands with generally flat horizontal surfaces 38 as shown in figure 1. Clendenning also discloses the use of the

stabilizing land further including generally vertical walls 60. Using stabilizing lands with horizontal surfaces and vertical walls helps better stabilize and limit movement of the tooth relative to the adapter during excavation, thereby reducing wear of the assembly.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made, to modify the device of Sturgeon by using stabilizing lands with generally flat horizontal surfaces and generally vertical walls as taught by Clendenning, to better stabilize the tooth on the adapter.

14. Claims 52,53,59,61,62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sturgeon (3,707,788) in view of Clendenning (5,765,301) as applied to claims 33-37,40-48,49-51,54-58,60-63 above, and further in view of Hahn et al. (3,621,594).

Sturgeon as modified by Clendenning discloses an excavating tooth assembly as described previously, but lacks the elastomeric material being disposed between the confronting vertical walls of the stabilizing lands.

Hahn et al. teaches that it is known in the art to cover an entire stabilizing land with an elastomeric material (rubber) to improve shock resistance (col 3 lines 40-46). Covering the entire stabilizing lands of Sturgeon as modified by Clendenning,

as taught by Hahn et al. would inherently include disposing the elastomeric material between the confronting vertical walls of the stabilizing lands.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made, to modify the device of Sturgeon as modified by Clendenning, by covering all of the stabilizing lands to improve shock resistance as taught by Hahn et al..

Conclusion


15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art of record discloses various excavating tooth assemblies.

Inquiries

16. Any inquiry concerning this communication should be directed to Examiner Victor Batson whose telephone number is (703) 305-6356. The examiner can be normally reached Monday through Friday (except Wednesday) from 7:00 am to 5:00 pm, Eastern Standard Time.

17. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Will, can be reached on (703) 308-3870. The fax phone number for this Group is (703) 305-7687.

November 21, 1998


VICTOR BATSON
PATENT EXAMINER
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